

Claims:

1. A rotary drive device of a polishing device such as a polishing table, a table for CMP or a rotary drive device of a polisher which is used to flatten an end face of a semiconductor wafer or an end face of liquid crystal glass, wherein a traction drive type reduction gear, which comprises: an externally contacting shaft; and a plurality of intermediate shafts which are equidistantly disposed at the circumference of and which are externally contacting with the externally contacting shaft, is used to transmit the rotation to the polishing table, the table for CMP or the polisher.

2. A rotary drive device of a polishing device according to Claim 1, wherein the traction drive type reduction gear comprises: an externally contacting shaft formed in a ring-shaped hollow cylinder and arranged at the center; a plurality of intermediate shafts which are equidistantly disposed at the circumference of the externally contacting shaft, and at least one of which is an input shaft; and an internally contacting cylinder with which the intermediate shafts internally contact, and under free conditions, the externally contacting shaft formed in a hollow cylinder has a diameter which is a little bit larger than a diameter of an imaginary circle which externally contacts with a plurality of intermediate shafts whereby pressing load is created by means of deformation of the hollow cylinder.

3. A rotary drive device of a polishing device according to Claim 2, wherein the internally contacting cylinder is formed in co-axially arranged double hollow rings, and that an inside ring and an outside ring of the double hollow rings are coupled with each other by means of a coupling member.

4. A rotary drive device of a polishing device according to Claim 2, wherein the internally contacting cylinder is coupled with the polishing table, the table for CMP or the polisher by means of a pin or a key.

5. A rotary drive device of a polishing device according to Claim 2, wherein the internally contacting cylinder is formed in an inner race of the main bearing.

6. A rotary drive device of a polishing device according to Claim 5, wherein the main bearing is formed by two lines of angular ball bearings, and the outer race of the main bearing is integrated with a housing of the polishing device.

7. A rotary drive device of a polishing device according to Claim 2, wherein an electric motor is coupled with an input shaft, and the input shaft is offset more greatly than a radius of the electric motor from the center of the externally contacting shaft.

8. A rotary drive device of a polishing device according to Claim 1, wherein the traction drive type reduction gear comprises: an externally contacting shaft which is disposed at the center and which serves as an input shaft; a plurality of intermediate shafts equidistantly disposed at the circumference of the externally contacting shaft; an internally contacting cylinder with which the intermediate shafts internally contact; and a carrier which it rotatably supports the intermediate shafts, and the output is taken out from the carrier or the internally contacting cylinder.

9. A rotary drive device of a polishing device according to Claim 8, wherein the externally contacting shaft is offset from the rotational center of the polishing table, the table for CMP or the polisher, an output shaft coupled to the carrier is disposed on an axis of an externally contacting shaft, and the output shaft is coupled with the polishing table, the table for CMP or the polisher by means of a power transmission member.

10. A rotary drive device of a polishing device according to Claim 9, wherein an electric motor is coupled with the externally contacting shaft which serves as an input shaft.